Amendments to the Claims:

Claim 1 (currently amended): A variable optical delay line comprising:

~~a plurality of fibers, each fiber having a first end disposed in a first linear array and a second end disposed in a second linear array, each fiber comprising a first parallel region, a curved region, and a second parallel region, wherein the first parallel regions of the fibers are parallel to each other, the second parallel regions of the fibers are parallel to each other, and the curved regions of respective fibers differ in radii of curvature to provide a series of monotonically differing path lengths; and~~

~~an optical switch for switching at least one optical input signal among the fibers of the plurality,~~

~~wherein each fiber includes a plurality of separately switchable reflectors that are switchable between reflection and transmission to provide coarse delay increments.~~

a plurality of fibers disposed in a closely spaced array, the array comprising a first parallel region, a curved region, and a second parallel region; each fiber having a first end disposed in a first linear array and a second end disposed in a second linear array, the second linear array comprising fixed reflectors, and the curved regions of the fibers differ in radii of curvature to provide a successive series of monotonically different path lengths, the path lengths differing by a few millimeters or less to provide small delay time increments;

a plurality of separately switchable reflectors disposed in each of the fibers, the reflectors switchable between reflection and transmission to provide coarse delay increments.

Claim 2 (original): The delay line of claim 1 wherein the optical switch comprises a MEMs mirror optical switch.

Claim 3 (previously amended): The delay line of claim 1 wherein each fiber includes a reflective Bragg grating.

Claims 4-5 (previously canceled)

Claim 6 (previously amended) The delay line of claim 3 wherein the reflective Bragg grating is formed in the second parallel region.

Claim 7 (previously canceled)

Claim 8 (previously amended): The delay line of claim 1 wherein the plurality of optical fibers are secured to a substrate of sheet material.

Claim 9 (original): The delay line of claim 1 wherein the at least one optical input signal is one optical input signal and the optical switch comprises a 1XN MEMs mirror optical switch.

Claim 10 (original): The delay line of claim 1 wherein the at least one optical input signal comprises a plurality of optical input signals and the optical switch comprises on NXN MEMs mirror optical switch.

Claim 11 (original): The delay line of claim 1 wherein the at least one optical input signal comprises a plurality of optical input signals having respectively different wavelengths.

Claim 12 (new): A method of making a variable optical delay comprising:

providing a substrate;
guiding placement of an array of fibers on the substrate;
forming gratings in the fibers;
providing control elements to control the fiber gratings;
placing reflectors at the ends of the array of fibers; and
providing one or more mirrors to direct light into and out of the array of fibers.

Claim 13 (new): The method of claim 12 wherein the step of providing a substrate, comprises providing an adhesive coated substrate.

Claim 14 (new): The method of claim 12 wherein the step of guiding placement comprises guiding placement by computer point to point placement.

Claim 15 (new): The method of claims 12 wherein the step of providing control elements comprises providing control elements to control the fiber gratings selected from the group consisting of magnetic control, thermal control, piezoelectric control, and megnostrictive control.

Claim 16 (new): A method to cause a variable optical delay comprising:

providing a substrate;
providing of an array of parallel straight and curved fibers on the substrate;
providing gratings in the fibers;
providing control elements to control the fiber gratings;
placing reflectors at the ends of the array of fibers;
providing one or more mirrors to direct light into and out of the array of fibers;
directing input light to be delayed into a fiber of the array of fibers;
controlling the fiber gratings to cause reflection or transmission;
receiving the light reflected from the fiber; and
outputting the delayed light.

Claim 17 (new): The method of claim 16 wherein the step of providing a substrate, comprises providing an adhesive coated substrate.

Claim 18 (new): The method of claim 16 wherein the step of guiding placement comprises guiding placement by computer point to point placement.

Claim 19 (new): The method of claims 16 wherein the step of providing control elements comprises providing control elements to control the fiber gratings selected from the group consisting of magnetic control, thermal control, piezoelectric control, and megnostrictive control.

Claim 20 (new): The method of claim 16 wherein the step of providing an array of fibers, comprises providing an array of parallel straight and curved fibers to provide a selection of fine time delays caused by path lengths differing by a few millimeters or less to provide small delay time increments.